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AUTHOR Manandhar, P. K.; And Others
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ABSTRACT

Eight articles on various aspects of communications in developing countries make up this newsletter issue: (1) "Extension and Communications in Nepal: Reforestation Program Uses Media Support" by P. K. Manandhar, E. Pelinck, and R. H. Gecolea; (2) "Using Puppets to Teach Ideas. 'Khel Dori Ka', an Audiovisual with Puppets from Bombay" by Myron J. Pereira; (3) "The Communication Process: Why Communication Must Be a Two-Way Exchange" by R. H. Gecolea; (4) "Microcomputer-Based Information: Big Rewards for Small Agencies" by Gary Garriott; (5) "Printed Cloth Posters: Practical Communications Tool for African Countries" by Beverly Emerson Donoghue; (6) "Time for a New Approach to Population Communication" by John L. Woods; (7) "Community Radio Thriving in Ecuador: Otavalo Indians Running Their Own Show" by Kurt Hein; and (8) "Villages: The Forgotten Resource. An Interview with Revelians Tuluhungwa," reprinted from Development Forum, Volume 10, No. 6. (LMM)

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Extension and Communications in Nepal

Reforestation Program Uses Media Support

by P. K. Manandhar, E. Pelinck, and R. H. Gecolea

Nepal has embarked upon a massive campaign of reforestation in the hills by enacting new legislation that provides for giving the villager greater responsibilities for and benefits from existing forests and from plantations to be established. This article is excerpted from a longer paper which describes the various steps which were taken to develop a comprehensive training and development program in support of community forestry development. The original paper, entitled "Extension and Training Components of Community Forestry Development in Nepal," was delivered at the FAO/SIDA Seminar on Forestry Extension in Semarang, Indonesia, in January 1982.

The Community Forestry Program

Background

Deforestation has been a serious problem in Nepal for many years. Between 1950 and 1975, one quarter or more of the total forest area disappeared. It has been stated that if this trend continues, all accessible forests will disappear in the next 15 to 25 years.

Forest products are vital to the survival of Nepal's predominantly rural population. Fuelwood, which accounts for over 95 percent of the wood consumption, will remain the principal source of energy as long as supplies last. Equally, almost every rural family keeps some livestock and a large percentage of the animal fodder comes from forests and trees grown on farmlands.

As the population increases, the demands for the products of the diminishing forest areas grow. This has led to widespread hardship for the rural population and to a general environmental deterioration in the hills since the late 1950s. His Majesty's Government of Nepal (HMG) has recognized the need to check deforestation. Initially, HMG tried to solve the problem by nationalizing all forest areas and controlling tree cutting. But enforcement of this policy, especially in the hills, proved to be difficult. More importantly, the hill people, who had always considered these forests as communal property, were no longer inclined to apply their traditional management systems which ensured sustained yields from the existing forest.

A New Policy

In 1978, HMG adopted a new forest policy. This allows for national forest lands to be handed over to the care of the rural communities, seeking at the same time their active participation in reforestation and forest protection work. A vital component of the new policy is the communications and extension service. Two new forms of land tenure have been introduced, the Panchayat Forests and the Panchayat Protected Forests.

In essence, Panchayat Forests are new plantations established on government-owned wastelands. The local panchayat—an administrative unit comprising several villages with a total population of 2,000 to 4,000 persons—is responsible for the planting and protection of the trees, and, in return, obtains all rights to the produce of the forest. The Panchayat Protected Forests are existing forests which require upgrading by partial replanting and protection or need to be maintained by instituting a viable management system. In return, the local panchayat can collect fuelwood, fodder, and minor forest products for local use and receives 75 percent of any revenue derived from the sale of logs or other major forest products.

Development of the Training and Extension Program

Departments in the Ministry of Forest and Soil Conservation did undertake some extension-related activities in the 1960s and 70s. Publications, posters, films and slides, and materials for radio broadcasts were produced sporadically. However, such communication efforts were not institutionalized, nor were field-workers mobilized for forestry extension to any significant extent.

With the adoption of the new forest policy in 1978, the need to establish an extension function within the Ministry became quite clear. The success of the new system of forest land tenure obviously rested largely on the degree to which villagers accepted custody of the forests and on how competently they managed them. In planning the community forestry program, therefore, HMG took into account its motivation and education aspects. These aspects will be referred to collectively in this paper as "extension."

HMG, with assistance from the World Bank, UNDP, and FAO, had earlier laid down the broad framework for communication and motivation activities within the community forestry program. In addition, however, DTCP (The UNDP Asia and Pacific Programme for Development, Training, and Communication, based in Bangkok) suggested that certain guidelines or premises be used as a basis for building the extension function. The basic premise, adopted from experience over a number of years in different Asian countries, is that the Department's network of field-workers is the single most important channel of forestry extension. They are the persons living among the potential beneficiaries of the program and would provide the services as well as disseminate information on the government's new forest policy. In view of the high rate of illiteracy among the hill population, the delivery of extension services must rely heavily on face-to-face or interpersonal communication. The

(continued on page 2)

In this issue . . .

Communication Strategy for Reforestation 1
Puppets Star in Indian Slideshow 3
Some Trenchant Thoughts on Communication as a Two-way Process .. 5
Sharing Microcomputers and Information . 6
Cloth Posters Carry Social Messages 7
A Communicator's Checklist 8
Reorienting Population Communication .. 10
Community Radio Thriving in Ecuador ... 11
On File at ERIC 12
Publications of More than Passing Interest 13
Revelians Tuluhungwa on Communication at the Village Level 16

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(continued from page 1)

use of mass communication media, mainly radio and posters, would be resorted to only to *support* person-to-person or person-to-group communication being undertaken by field-workers.

Forestry Extension Activities

Agricultural extension services were originally established to help farmers increase their income and raise standards of living by bringing to them improved farming practices. Forestry extension essentially adopts the same objective and can use many of the same methods as in agriculture. However, forestry extension—and in particular community forestry extension in Nepal—poses two special problems not commonly found in agricultural extension. The first is the long period that must elapse before improved forestry practices produce benefits. Where agricultural crop calendars can be measured in a few months, it takes years or decades for trees to deliver their rewards.

Second, communal custody and management of forests can only succeed with consensus and concerted action by entire communities. In agriculture, an extension program can be pointed towards success by initially convincing and aiding only a handful of farmers to try new practices on their farms. There is reasonable assurance that they will be generally conscientious in seeing to it that the practices succeed. In community forestry, such small trials cannot be depended on. It will not do for a handful of dedicated villagers to plant tree seedlings in a communal forest, only to have their seedlings trampled the next day by cattle being grazed by other villagers.

Training and Extension Materials

Various types of communication materials have been developed to make field extension and training activities more effective. All visual aids were drawn by a Nepali artist with the advice of a DTCP visual media specialist with technical inputs from national and international staff at the Community Forestry and Afforestation Division (CFAD). Extension materials were field-tested before final printing, and training materials were scrutinized for their technical content by several foresters.

Training Materials

To standardize a number of basic principles in nursery establishment and forest plantation and management, a number of training aids have been prepared.

1. Nursery Flip-chart

A black-and-white flip-chart of 21 pages (70×55cm) was produced to illustrate the various steps in the establishment of a tree nursery and the growing of tree seedlings. Printed copies of this flip-chart were distributed to each Forest Division and institutions and organizations involved in similar programs. They are being used in training prior to the establishment of nurseries. Each flip-chart fits into a specially designed plywood box, which serves as storage when not in use and as a stand for the chart during teaching sessions.

2. Plantation Flip-chart

The establishment and maintenance of tree plantations are the subjects of another set of 17 flip-charts for training prior to the planting season.

3. Nursery and Plantation Booklet

The Nursery and the Plantation flip-charts were also reproduced as a booklet (20×15cm), which the trained field officials can keep for their future reference. These booklets have the same picture as on each of the flip-charts on one page and a more detailed description of the particular subject on the opposite page.

4. Filmstrip on Nursery Establishment

A color filmstrip was also prepared to make the training more attractive and to carry the same message in a different form. However, the logistics of providing adequate projectors to each of the Divisions poses some problems. Different types of projectors with rechargeable batteries are presently being tested.

Field Extension Materials

As community forestry is a completely new concept of forestry, a comprehensive program has been developed to make people aware of the opportunities for participating in the program. The message of community forestry has to be brought to the villagers by the Community Forestry Assistants and the Divisional Forestry Officers. To facilitate their work the following materials have been developed:

1. Community Forestry Extension Flip-chart

Three hundred copies of a flip-chart of 20 black-and-white illustrations were printed. This flip-chart is intended as a visual aid for the field officials during their information and motivation work in the villages. The flip-chart illustrates the need for forests and their products, including ecological aspects, the problem of population growth and dwindling forest areas, and the solutions proposed under the new policy—the establishment of Panchayat Forests and Panchayat Protected Forests.

2. Community Forestry Extension Booklet

A 20-page booklet has been produced in response to a request from the CFAD field officials to hand out to literate members of the public after their information/motivation sessions in the villages. The booklet explains in simple language the need to protect and replant forests, the new forest policy, the various kinds of assistance provided by the government, the responsibilities of the local panchayat, and the distribution of benefits from Panchayat Forests and Panchayat Protected Forests.

3. Posters

Several posters have been designed, each of which has one or two messages, e.g.: dependence on forest (present and future); fire protection; free distribution of plants from panchayat nursery; the distance to walk for fuelwood, and the scope for planting trees around the house and in Panchayat Forests.

Posters will be distributed to villagers, panchayat offices, and government offices.

4. Signboards

As mentioned before, nurseries are established in each panchayat which participates in the program. The seedlings grown in these nurseries are to be planted in the new Panchayat Forests or Panchayat Protected Forests. However, seedlings are also distributed free of charge to every villager who wants to plant trees in his own fields or yard. A signboard was designed for display at the entrance of the nursery or in a highly visible location close to the nursery, where it can attract people's attention to the distribution of free seedlings. As there are no motorable roads in the hills, people on foot can easily see signboards and stop and ask questions of the Forestry Foreman at the nursery. It displays the program's logo, and the name of the sponsoring government agency (Community Forestry Development Programme).

5. Seed Collection and Sowing Calendar

To help field-workers, in particular nursery foremen, a calendar was prepared with names of trees whose seed should be sown or collected in each month.

Public Information

The communication campaign pays particular attention to the primary and secondary schools in the program area. One reason for this attention is that the conservation of forests is of such importance to Nepal that its citizens should learn at a very early age about the proper harvesting of forest products and about conservation and protection.

Another reason is that schools, which are spread throughout the country, can be an effective channel of interpersonal communication on a national scale. If all the teachers and students can be persuaded to share their knowledge with their relatives and friends, a significant portion of the population can be reached. Based on this consideration, the school publication, a combination of folder (for teachers) and wall chart (for students), has been designed in such a way that it can also be used outside the areas specifically included in the program.

From the very beginning the Community Forestry and Afforestation Division was made responsible for a weekly 10-minute radio program by the Ministry of Forests. While many different aspects of the program

(continued on page 14)

Using Puppets To Teach Ideas

Khel Dori Ka, An Audiovisual with Puppets from Bombay

by Myron J. Pereira

The Xavier Institute of Communications, Bombay, is a training institute for the professional mass media. However, precisely because in India, the organised mass media comprise only one section of public communications, the Institute takes a great interest in group communications and in the smaller media. And one traditional medium which has asserted itself anew even in an urban context is puppetry.

The range of puppets is well-nigh infinite. At Xavier Institute, in the ASTHA Department (ASTHA is a Marathi word meaning 'concern') two kinds of puppets are commonly used, *hand-puppets* (also called *glove-puppets*) and *shadow-puppets*. There's a reason for this. Hand-puppets (and glove-puppets to a lesser degree) are among the simplest to fabricate and the easiest to use, and Ashok Kondhalkar and Prakash Gaikwad who head the puppetry unit, have got the maximum effectiveness from the slenderest equipment.

Usually the ASTHA puppet unit functions in this fashion: An invitation is received to present a puppet show in a neighboring school or welfare center or in a slum club. Ashok, Prakash, and their team present a half-hour program (usually one or two skits, presented live with a lot of leeway for audience participation!), and then invite reactions from the audience. A presentation usually leads to a request to conduct a training workshop, for puppetry is one medium which provides for a variety of talents—from designing and fabricating the puppets, to scripting and presenting the show—and almost everyone has something to contribute. In the course of a year and a half, ASTHA has conducted some seven workshops for groups as diverse as fieldworkers in urban slums to kindergarten schoolteachers.

So production, presentation, and training in puppets has been very much part of ASTHA's investment in folk media. The question which led ASTHA to the making of the sound slide-tape *Khel Dori Ka* (Puppets on a String) was of a completely different kind. Put very simply, it asked: *Can a concrete, folksy medium like puppets put across abstract ideas on society and communications?* Puppetry was seen to be effective in entertaining and welding a group together. Could it be equally effective in teaching abstractions?

The Background: Reactions to Audiovisuals

Over the last four years, ASTHA has crafted a number of sound-slide programs on roughly three topics—Work and Employment, Health, and Myth and its Relation to the Present. Through a series of screenings and discussions on the shows, mainly with working-class people in Bombay's slums and tenements, a composite reaction to the shows emerged. Writing in the ASTHA newsletter, the audiovisual producer Anjali Monteiro observed,

> The people are obviously used to thinking in terms of 'messages' which are given to them in a classroom situation. Given this fact, they expect to be 'told something,' moralised at. Therefore the slideshow is somehow twisted and made to yield messages which have only tenuous links with the actual slideshow itself.

The screenings also brought ASTHA face to face with practical problems from the animators. Perhaps because most of the animators came from a classroom background of the traditional kind—many were teachers in the formal school system—they stuck quite rigidly to the classroom situation with all its overtones of authoritarian discipline. Most felt quite secure in this kind of situation. No dialogue, no discussion. Just a question-and-answer session.

> —Did you learn anything new from the slideshow, *A House Servant?*
> —No. We already knew about a domestic servant's life before.
> —Doesn't it help to show something like this to the menfolk?
> —Heh-heh! As if they'll change just by seeing it!

Or again,

> (to a group of young men who had kept quiet during the whole discussion)
> —Why didn't you open your mouth? Why didn't you say something?
> —How could we? How can we speak in the group unless our elders give us permission?

How to overcome such a pedagogy? How to tackle the pedagogy of defeatism and dogmatism, and substitute instead learning through participation and dialogue?

One way we might attempt this would be to depict the strata of relationships within society which contribute to such thinking. Oppression exists frequently in internalised form, never realised for what it is. And could an audiovisual slideshow attempt such a presentation in a more effective way than blackboard and textbook?

Thus the audiovisual *Khel Dori Ka* (Color, 52 sl/12 min.) took shape. It was conceptualised and scripted by Feruzi Anjirbag and photographed by Gerry Drozario. Ashok Kondhalkar designed the puppets, and Hriday Lani cast the dialogue.

Content and Form

From the beginning it was decided to use puppets as the chief players within the audiovisual, and to blend these 'mock' characters with scenes photographed from real life. Thus the visual form of the slideshow moves at two levels, that of the marionette theatre, and always in the background the easily recognised scenes (in black-and-white) of everyday city life. Similarly, the sound track, scripted in colloquial Hindi, the pidgin of the Bombay streets, moves at two levels: the interchange of puppets who present various scenes from everyday life, on the street, in school, at home and at work; played off against the racy, cynical comments of the

(continued on page 4)

Puppets in the slideshow play out their drama against a realistic city street background.

(continued from page 3)

sutradhar, a narrator-like figure, a court jester, whose barbed asides reveal the scene for what it really is. Interspersed in the soundtrack are also radio commercials and current pop (film) music.

Probably this is the place to comment on the need for a rigorous form of social analysis as an integral part of all communications study. No one disputes the need for skills in learning to use media, but without any kind of systemic analysis of media structures, the communicator either ends up politically naive or heavily moralistic.

Nor do we say that such issues are completely treated in the audiovisual under discussion. Like any other medium, the audiovisual has its strengths and limitations. One strength is the visual and graphic presentation which by its very nature is attractive and enlightening. If the slideshow has a weakness, it is that of form over content: what conclusions may one derive from the analyses?

Khel Dori Ka has been used at various levels and with varied audiences. Success has not been unqualified. One area which holds promise is ASTHA's participation in the curriculum for slum animators, taught in a local college of social work. The organizers of the curriculum wisely decided to involve media in the learning process, and not merely as "teaching aids." In earlier programs, the participants would have to dramatize or represent in visual form (through posters) topics on their syllabus. The plan is to go one step further. How to use the media itself as a source of information and reflection upon social reality, and how to express through media—from the simplest to more complex forms—one's grasp of abstract truths?

Herein lies the task of the artist—and we're using this term in the sense of all those who feel inspired to create, to translate into symbols their thoughts and feelings—even artists from a culture of deprivation, such as exists in the urban slum.

Our challenge is to build up a curriculum which would use as "texts" pop music and street language; film posters, newspaper photos, folk art, hand-made slides; and puppets, of different kinds and in different situations. An ambitious program, of which *Khel Dori Ka* is the first hesitant step.

Wherein lies the fascination of puppetry? Perhaps in that marionettes have a human face and a human gait. They both manipulate and are themselves manipulated. Just like us. And so they re-create in costume and caricature what we go through in real life, alas, with deadly seriousness. ■

Myron J. Pereira's present work includes designing a program in media education for high schools; directing a project in the mini-media related to development (ASTHA); and administering the network of Jesuit communicators in India.

For further information contact the author at Xavier Institute of Communications, St. Xavier's College, Bombay-400 001 India.

Khel Dori Ka: A Selection

(Most of the visuals take place at two levels, the actual scene with its players, and secondary remarks of the *sutradhar* [narrator/jester] which are always scathing asides.)

Visual		Script
a classroom	*Teacher*	Four times four is sixteen
	Pupils	Four times four is sixteen
pupils' faces		Four times four is sixteen
	Teacher	The capital of India is New Delhi
	Pupils	The capital of India is New Delhi
		The capital of India. . . .
	Sutradhar (v.o.)	Mere parroting, this seems to me. Notice the positions of the teacher and the pupil. The teacher stands.
teacher standing		The pupils sit. The teacher decides, "Today we will study why plants are green. . ."
		As Paulo Freire says, Our education suffers from 'narration sickness.' It's the teacher alone who acts. The pupils only have the illusion of acting through the teacher. . .
	Teacher	What's the capital of India?
pupils speaking	*Sutradhar*	Ha, Ha! Will any pupil challenge her? Say that the *real* capital of India is Bombay?
	Pupils	(in chorus) . . . is New Delhi.
close-up picture of sutradhar	*Sutradhar*	And the pupil becomes a young man. And then a parent. And maybe a teacher. On and on, he'll say, "Four times four is sixteen. The capital of India is New Delhi." He's been domesticated all right. Tame.
		Look at this scene now.
A slum setting. Crowd sitting in front of a social worker.		Let's listen to her speaking.
	S. Worker	All of you have two alternatives.
Social worker and crowd	*S. Worker*	You either get a new committee started, one you can trust, or continue living in the same dirty way. Don't expect me to do things for you. I'm here only to help you. Understand? *Help* you.
	Crowd	(No reply)
	S. Worker	So don't blame me or anybody else. It's *your* choice. Either choose a new committee, or carry on in the same way. . .
	Crowd	(No reply)
	S. Worker	I can only *help* you. . .
	Sutradhar	Oh yeah, oh yeah! Notice how the subtle manipulation goes on "I'm only here to help you." But I *do* tell you—either this or that. Free choice? But you *have* to choose what *I* prescribe.
		Oh dear! Aren't we always making up their minds? Deciding what's good or bad for them?
		Aren't we all guilty of playing the puppet game? ■

The Communication Process:
Why Communication Must Be a Two-way Exchange

by Dr. Romeo H. Gecolea

Communication has been defined in various ways, but most simply it is the process of sharing ideas, feelings, or attitudes.

One useful way of viewing the communication process is through what is known as the "SMCR Model." This term refers to the first letters of the basic components of the communication process, namely: Sender, Message, Channel, and Receiver. These components are always present when communication takes place.

However, for those involved in communications for rural development, these components are not adequate. There is one other very crucial component in the communication process: Feedback. Without feedback, it is not possible to determine whether one has communicated effectively.

Development communicators must always have a goal. For this reason, communication must always be thought of as a two-way process. The good communicators are those who are sensitive to feedback. The best communicators are those who study the components of the communication situation and ensure that they will get the feedback they want even before they fashion and send their messages.

Sender

To take a closer look at each of the communication components, it is worth starting with a familiar little story.

Let us take the case of a field-worker assigned to a village. He is young, enthusiastic, fired with missionary zeal. He goes to the village determined to lift the rural inhabitants from the quagmire of poverty. So he sees Farmer A and asks him to try the newest high-yielding rice variety, HYV747, otherwise known as "jumbo rice." He tells the farmer about applying fertilizer and agrochemicals as well as telling him about weeding, water management, etc. He does the same for Farmer B, Farmer C, and Farmer D.

Then a brilliant idea strikes him. Instead of talking to the farmers individually, why not call all farmers in the village to a meeting and teach them about modern farming there? So he announces to the villagers that he will hold such a meeting at 7 o'clock that evening. Of the 100 farmers in the village, only 30 come. But of the 30, 15 fall asleep halfway through his discourse on pest control. Of the 15 who somehow stay awake, five finally agree to try HYV747 in their fields. Of the five who try the new rice, two do not follow the recommended cultivating practices and one almost destroys his entire HYV747 crop because he mistakes a herbicide for an insecticide.

After four cropping seasons, rice production in the village remains virtually the same as its was four seasons earlier. However, the young field-worker no longer has the same enthusiasm. His missionary zeal has all but fizzled out; he now suspects that farmers in general are resistant to change, lazy, and truly stupid. "Why, HYV747 can yield twice or even three times as much as their traditional varieties! Yet they don't listen to me!"

This story involves rice technology. But perhaps the same thing happens to field workers who deal with programs concerning farm credit, irrigation, cooperatives, or family planning. The fact is that very often what we want to achieve falls far short of what we actually accomplish. Why?

The reasons are many, and not all of them have to do with communications. However, let us examine each of the components in this communication situation to find some answers directly related to communication.

Receiver

It is quite likely that the field-worker in the aforementioned example forgot rule No. 1 in effective communications: "Know your audience." He assumed that because HYV747 yields much more than ordinary varieties, it could be expected that farmers consider it perfectly rational—just as the field-worker considered it rational—to adopt the new variety. However, the results of his effort prove that he did not have an accurate picture of farmers in that village. Were farmers really interested in increasing their rice yields through a new variety? Which farmers were interested, and why? Which were not, and why not? What is the best time of day to hold a farmers' meeting? Obtaining answers to these and other questions should have been part of the preparatory work undertaken by the field-worker before he charged ahead with his "jumbo rice."

Making assumptions about the intended receivers of our message is a risky proposition. This is particularly true of farmers, who are probably among the most misjudged groups of people, at least by those who plan and implement rural development programs. We often use our own values and standards to judge how farmers will react to our messages, instead of first finding out their values and standards for making decisions.

Message

This brings us to the message that our field-worker tried to communicate: "Plant HYV747." This may have sounded simple enough to him, but what are the actual implications to the farmers?

HYV747 really represents a package of new practices involving heavier use of fertilizer and pesticides, measured spacing between plants, a sure supply of irrigation water that can be precisely managed, and intensive weeding. Are all these inputs available? Is the money needed to use them available? Even if all these inputs are available, how reliable is the field-worker's assurance to farmers that yields will double?

In most rural development programs, the objective is often to get farmers to adopt technological innovations. Communicators and extension workers sometimes forget that anything new entails risks. These risks often involve the very survival of subsistence farmers. If "jumbo rice" fails, not only does the farmer lose the cash he has invested in inputs, but he loses his supply of staple food for the season or the year as well.

Rural communicators have to realize that farmers are generally resistant to change for very good reasons. Traditional practices may be inefficient in our view, but they have served generations of rural families reliably. Unless the new practices that we propose in our messages prove to be better and at least as reliable, there is no point in trying to get farmers to accept them.

Channel

Let us assume that our field-worker did his homework in finding out about his audience and that he has determined that HYV747 is a better, more feasible and reliable type of rice. Yet only a handful of farmers attended his meeting and very few actually planted the variety he recommended. Such poor results could be due to the poor or inadequate communication channels he used.

Words make up our most common form of communicating, but they are also sometimes the least efficient. This is because meanings are not in words, they are in people. Stated another way, the same words can hold different meanings and connotations for different people. In fact, in the case of technological innovations, a lot of words may have no meaning at all to farmers.

Only 30 of the 100 farmers in the village attended our field-worker's meeting. The reason perhaps may have been due to a lack of publicity, but it probably was because the farmers knew it would be a long, boring session where the field-worker would talk and talk. Like any of us, farmers do not exactly enjoy listening to a long speech on a complex subject, especially after a hard day's work. In our story, the farmers' fears were apparently well founded since 15 of the 30 who attended fell asleep.

Everything could have turned out differently if the field-worker had not relied on words alone to tell his farmers about HYV747. For the announcement of the village meeting, he could have improvised simple but informative posters; he could have used school children to inform their parents; or he could

(continued on page 15)

Microcomputer-based Information:
Big Rewards for Small Agencies

by Gary Garriott

Debates rage on whether the advent of the information revolution made possible by the falling costs and increasing power of microelectronics technology will have a net positive or negative effect on developing countries. Disagreements on whether microelectronics have really anything to offer the poor are even more pronounced. For example, nonprofit agencies such as private voluntary organizations and church-related groups (reportedly as many as 300 in Kenya alone) provide significant levels of development assistance, yet often cannot avail themselves of the benefits of computer power.

A Washington DC (USA) consortium provides a possible model for effective use of a microcomputer as a self-sufficient information system. The Washington Council of Agencies is made up of over 100 small nonprofit organizations which pay a membership fee based on each group's annual operating budget (typically in the US$50,000-250,000 range). Besides advocacy functions, the Council provides support services to its member agencies that if done individually would consume significant amounts of time and financial resources, which small organizations often cannot afford. A microcomputer with "floppy" disk drives, a "hard" disk mass storage device, two CRT (cathode ray tube) terminals capable of being used simultaneously, and a printer are employed to provide a variety of information services including the management of mailing lists, maintenance of skills banks, compilations of contributions made and of other reports and directories, bulk mailings, word processing for repetitive letters and newsletters, and a dues and subscription service. Accounting packages are being developed. For these services, member agencies pay a fee that is below the typical commercial rate, but above cost. Nonmember organizations can also contract for these services; two to five new accounts are added monthly.

The result is that income generated from these microcomputer-based information services averaged about 25 percent of the Council's total revenues during the first six months of 1982. This is expected to more than double by the end of the year. The Council reports few start-up and implementation problems with the system. Adaptation of commercially available "user-friendly" software was performed by a local software house. Two years ago the system cost approximately $18,000 including software development; the same set-up today would be 10 to 15 percent less.

The Council deals with psychological resistance to computers by encouraging potential users to come to its facility to see the equipment in operation or to even operate it themselves. They will also arrange demonstrations held at the member agency's convenience. The Council offers discussion seminars for newcomers, covering computer terminology and concepts, microcomputer information applications for organizations, as well as guidelines for evaluating microcomputer systems. Most data to be processed is either brought personally to the Council's office or sent through the mail, though eventual data transmission via telephone is contemplated once a number of agencies have acquired remote terminals. In fact, the Council is supportive of the concept of microcomputers networking together instead of time-sharing their established system because of the added flexibility and independence provided to each member agency. Revenues probably would not be greatly affected since the number of organizations still requiring information services is likely be much greater.

A VITA Volunteer is a computer systems consultant to the Washington Council of Agencies. For more information on how the Council and/or the microcomputer information system functions, contact the author at: Volunteers in Technical Assistance, 1815 N. Lynn Street, Suite 200, Arlington, Virginia 22209, USA.

That modestly endowed groups are increasingly supporting these information services is an indication that the package offered saves them both time and money while simultaneously turning a "profit" for the consortium. Throughout the United States, half a dozen other consortia or agencies interested in supplying similar services are establishing their systems on the Washington Council of Agencies model. There is also a potentially greater indirect payoff in that nonprofits—notorious in both the US and abroad for their isolation from each other—learn that they can work together in certain activities for greater overall efficiency without compromising programmatic goals.

While a direct transfer of this concept to nonprofits working in developing countries should be possible, other variations would appear quite feasible as well. For example, enterprising individuals or small businesses could market themselves as "data management service bureaus" to the private sector as well as to government or parastatal groups. Database searching is an additional capability valuable for research and developmental units and the private sector.

The Washington Council of Agencies experience illustrates that the delivery of useful microcomputer-based information services is not the purview only of large database management firms, but that it lies also within reach of less sophisticated agencies and groups. ■

Gary Garriott is a Senior Technical Advisor at Volunteers in Technical Assistance and is currently coordinating microcomputer initiatives for that organization.

Reviews (continued from page 13)

- The Intergovernmental Bureau of Informatics (IBI) is concerned with professional applications of electronic information, and keeps careful track of trends through two publications, *IBI Newsletter,* and *Agora,* a journal for "Informatics in a Changing World." *Agora* devotes an issue to an area, such as informatics and agriculture, features articles on country activities, on the setting up of regional informatics centers, training programs, meetings and a calendar of events, legal issues, and educational applications. Much of the journal's focus is on the developing world, and it is available in English, French, and Spanish.

  For information regarding subscriptions to either the newsletter or the journal, contact IBI, Viale Civilta del Lavoro 23, 00144 Rome, Italy.
- *Prospects,* Unesco's quarterly review of education, has devoted much of its recent issue (Vol. XII, No. 3, 1982) to "Educational technology: myth and reality." Eight articles by well-known names in the field examine the current status of educational technology. A case study reports on the Cuban Radio Victoria de Giron's educational outreach to young people. Unesco's address is 7 place de Fontenoy, 75700 Paris, France.
- *Ideas and Action* (a joint publication of the Freedom from Hunger Campaign and Action for Development of the Food and Agricultural Organization of the UN) has issued a special double issue, #145 (in English, French, and Spanish) on "Rural Health." It has the particular purpose of calling attention to the failure, to date, to involve rural people in their own primary health care as part of the rural development process. Reports on community-based efforts in Peru, Guinea Bissau, and Yugoslavia appear; issues such as planning and management, pesticides, and financing schemes are featured. There is a helpful annex which includes resources and publications, information on common diseases, a list of basic drugs for rural health centers, basic sanitation principles, and guidelines for pesticide use. Issue #145 on Rural Health is available from Action for Development, FAO, 00100 Rome, Italy.

Reviewed by Judy Brace.

Printed Cloth Posters:
Practical Communications Tool for African Countries

by Beverly Emerson Donoghue

"While others try to reach the moon, we must aim to reach the village."
Julius K. Nyerere

Visual materials provide important support for communication, education, and training programs in Africa. Conventional media and print materials, however, are often scarce because of the reliance on imported supplies, technologies, and personnel from the developed countries. This paper examines an innovative educational medium—screenprinted visual aids on cloth—that was developed in Ghana. The rationale for printed cloth, the production process, and research and development efforts in Ghana and the Sudan are described.

Why Cloth?

Unlike paper and electric/electronic visual media, cloth is a familiar sight in both urban and rural areas of Africa. Everyday scenes of fisherfolk bringing in their catch, market women selling their wares, children caring for young ones—each is accented by colorful cotton prints that are manufactured by local textile factories, both large and small. Throughout the continent, there is a strong tradition of textile artisans, who often create striking fabric designs from the simplest tools.

Cloth is also a very durable material, and, unlike paper, will last a long time—despite the temperature and humidity extremes of Africa's wet and dry seasons. Whereas paper is "imported" both from other countries and from the city, cloth is a familiar commodity, and as such is much more "touchable" or "approachable" than paper. Cloth can easily be washed when soiled, and readily folded up and carried from village to village. People wear fabric, wrap their babies in it, and use it to carry all kinds of things. So why not let cloth carry educational messages as well!

In fact, several African countries have had fabric printed to illustrate and promote slogans for national campaigns—such as "Operation Feed Yourself" in Ghana and "Healthful Foods" in Tanzania. When worn, these brightly colored designs become walking posters for everyone to see. The use of printed cloth designs as visual communication tools simply carries the textile medium one step further.

The Production Process

The simplest method for printing large designs on cloth is silkscreen printing. The actual stencil is a very fine mesh screen fabric stretched tightly across a rectangular wooden frame. Open spaces in the screen are the design areas to be printed, with the rest of the screen sealed with lacquer, gelatin, or film to prevent ink from passing through.

The basic equipment—screen frame, printing blade, and long printing table—are constructed mainly from wood. Local materials can satisfy most, if not all, printing supply needs. Most of the labor can be performed by unskilled workers, who can be given on-the-job training in manual screenprinting methods. The labor-intensive printing process is particularly appropriate for developing countries, whose greatest potential resource is the large pool of untrained and under- or unemployed workers.

The production sequence is as follows:

1. After the design is pretested and revised, each color is transferred onto a separate screen. This can be done several ways—with paper for large areas of color; with lacquer or a knife-cut film; or with a light-sensitive gelatin or emulsion for highly detailed designs. The method used will depend upon the available supplies, the complexity of the design, and the number of prints or copies needed.
2. The design is then screenprinted on cloth: when dyepaste or ink is spread across the screen with a rubber blade, the paste goes through only the open parts of the screen stencil onto the cloth below. Each color is printed down the length of the cloth.
3. After the printing of all the colors, the printed cloth is removed and dried in the sun, then usually ironed to help bind the dye or pigment to the cloth.

Research and Development Efforts

Because the printed cloth medium seemed to be such a natural one for the African setting, a prototype development project was organized in Ghana in 1974 to test the technical feasibility of printing large educational designs on cloth, to find out how acceptable the cloth medium would be to educators and extension personnel, and to determine the production costs involved. With the assistance of private educational organizations, private industry, and government agencies, Ghanaian art students designed and printed on cloth four-color illustrations of the eye, the digestive system, and a physical map of Africa. The periodic chart of the elements and the life cycle of schistosomiasis were also printed. The response from teachers and educators both in Ghana and in other African countries was a unanimous preference for the cloth-based visual aid over conventional paper ones. Printed cloth designs were seen as one of the few communications media that could in fact "reach the village."

Silkscreen printing was found to be economically feasible if done on a mass-production scale. Based on a minimum order of 2,400 copies of a design approximately 1 meter by 1.7 meters, preliminary cost estimates made in Ghana indicated that these could be printed for less than US$3.00 each. Because cloth was readily available locally and because the cost of imported inks and stencil materials was only a tiny fraction of the overall cost of materials, the production figure was considered quite reasonable.

Since 1974, with frequent shortages of all kinds of goods, there has been an even more urgent need in Ghana to develop products from local materials. Accordingly, an in-depth feasibility study and workshop on textile visual aids was jointly sponsored by the Ghana government and the U.S. Agency for International Development in 1980. The purpose of the study was to assess the demand for visual materials on cloth; to determine the availability of necessary supplies; to update production costs; and, if found to be feasible, to recommend organizational options for the development and production of printed cloth materials.

A 10-week workshop on Textile Visual Aids was provided for representatives from the Ministries of Education, Agriculture, Health, Information, and organizations associated with nonformal education and family planning. Participants designed, pretested, revised, and printed illustrations on several topics: raising rabbits for food, eating a balanced diet, making oral rehydration fluid, preventing diarrhea, family planning for women, family planning for men, and village scenes for language learning in primary schools. The ministries were not only pleased by the cloth posters designed for their use, but also wanted to have several of the illustrations designed for other ministries.

The visual aid needs of various sectors were found to be quite large. There were over 7,000 primary schools and over 4,000 middle schools in Ghana. The Ministry of Health wanted to have at least 5,000 copies of designs on several topics. The Home Extension Unit of the Ministry of Agriculture, the Ghana National Family Planning Program, and the Mass Literacy Campaign by the Department of Social Welfare and Community Development were other nation-wide extension programs which needed durable visual materials. Because of the durability of cloth, agency officials gave US$3.66 to US$5.50 as a reasonable price for each textile print.

Production costs were determined for a private textile printing factory and for a production unit at a training college with printing facilities. With a minimum order of 1,000 prints, the cost per print from a private firm was US$2.28. If done by the production unit, the cost would vary from US$1.86 to $2.74, depending upon the quality of cloth used for printing.

(continued on page 12)

A Communicator's Checklist

1 ***Tradition for Development: Indigenous Structures and Folk Media in Non-Formal Education,*** edited by Ross Kidd and Nat Colletta (German Foundation for International Development and International Council for Adult Education, 1981), 639 pp.

Developmentalists often perceive local culture as an obstacle to be overcome. *Tradition for Development,* a collection of 18 papers from an international seminar on "The Use of Indigenous Social Structures and Folk Media in Non-Formal Education and Development," challenges this presumption. The book makes the case that there is a positive role for indigenous structures and cultures in the development process.

By dividing the book into three sections, the editors provide some focus for an uneven variety of papers. The first section examines the authority of folk institutions and processes. It reveals, for example, how indigenous organizations for water distribution, schooling, village-level politics, or such deeply rooted values and customs as the GOTONG ROYONG, an Indonesian self-help system, can support development. The second section treats the use of traditional performing media, like folk theater, to extend development to social groups normally outside the modern communication network. The final section presents several brief reports from a debate over how best to exploit the influence of indigenous culture.

Because of the way in which it documents the insights gained from working with local culture, this book should be a welcome addition to the developmentalists' library. Many specialized bibliographies enrich the book. The sections on traditional structures and folk media have helpful introductions. Other papers identify intriguing features of folk society. Yet, each of the 18 papers tends to explore only those ideas that arise from its particular experiences.

Although the indigenous group is a special form of social organization with certain kinds of structures and processes, these papers lack a broad framework for their ideas, a clarification which would have been useful to the general reader. Here modern folklorists might have been used to clarify some key ideas on the nature of folk culture, its structures, its functions, its limitations, and its relationship with other social groups. However, the failure to discuss such crucial concepts may be a product of the immaturity of the issue rather than a particular shortcoming of the book.

In the final section, two contrasting development strategies found in the earlier papers are summarized. The first approach, that of the instrumentalists, utilizes folk media as another technique for presenting the usual development messages—health, sanitation, literacy, or farming. The development process is under the agents' control but indigenous structures are drawn into its service. The alternative approach, that of the structuralists, entrusts control over development to the local group. This creates an opportunity to avoid the inhumanities that structuralists see in existing social structures. Their goal is to transform this power into a base camp in the struggle for class freedom. While no synthesis of ideas is attempted, these arguments are valuable as an introduction to the major ideological preferences found in this area.

Even though some of the papers in this book may fail to use reliable notions of folk culture in generating their development strategies, studies in this area are hard to find and worth reading. Furthermore, the wide range of ideas found in these essays should serve as an important starting point for analyzing the full potential local cultures hold for the development process. ■

Reviewed by Terry O'Connor, a doctoral student in comparative education at the University of Virginia.

Available from the German Fund for International Development, Simrock Strase #1, 5300 Bonn, GDR.

2 ***About Understanding—Ideas and Observations on Cross-Cultural Communication,*** by Andreas Fuglesang (Sweden, Dag Hammarskjöld Foundation, 1982), 231 pp.

About Understanding could be sub-titled: "What every good development communicator ought to know." The title suggests the theme of the book is understanding; actually, it is about "making meaning," or the process of arriving at a cognitive state of understanding. Every human being is a meaning maker, actively seeking to comprehend the situation or context he or she is in, using as tools whatever knowledge and experience his or her own culture has offered.

To understand communication initiated by another requires that a common context between sender and receiver be first established so that the meaning intended is the meaning made. In some cases this common context is established only by great effort of the sender. This is especially true for a development communicator. The culture of the audience has already supplied a meaningful world and the audience's preconceived ideas of reality have long since fostered a tradition of appropriate behaviors. The new information put forward by the development communicator may seem to the listener gratuitous, if not meaningless.

Fuglesang admonishes, "People in cultures may have useful ways of communicating, of which we are unaware." Anecdotal evidence, sensitively portrayed, supports tnis admonition. Fuglesang examines the cultures of African tribal people through their social structures, the nuances of their languages, and their verbal traditions. He writes with benign humor, and he clearly respects the African villagers he writes about.

Fuglesang traces the development of forms of representation—systems of accounting for crops and livestock—which evolved into the written word. Later, he avers that representation is the root of "digital communication" which is a Western literate invention. As a counterpoint, he asserts that "analogical communication" is prevalent in the examples given about the African villagers. His purpose in introducing these concepts is to question a Western notion that literacy and hence digital information processing is the prerequisite for desirable social transformation. The book does not need the digression into digital information processing, a fuzzy construct of cognitive psychology, to reinforce the contention so poignantly made by describing the perceptions and the experiences of the villagers themselves.

The chapter on village education is a superior reminder of what a development communicator's task really is: to begin at the learner's understandings and to use methodologies consonant with how other culturally related knowledge is learned. The two chapters following highlight relevant research in visual perception and summarize Fuglesang's research in understanding visual communication. Fuglesang's insights are valuable to anyone working in the field of visual communication, from development to advertising. The penultimate chapter on the uses of visual media to change health practices is a study in practical applications of the foregoing theoretical foundations.

Throughout the book, Fuglesang jars the Western reader by suggesting that the "sacred" traditions of scientific method and Aristotelian logic are no more valid a way of processing information than the "magic be-

havior" of some African villagers. However, in his enthusiasm for making a case for the cognitive integrity of the villager, Fuglesang may have been judgmentally harsh on members of Western societies who equate civilization with Doric monuments or who are entrapped by logical, analytic thinking. If the undercurrent of the book is that we all make meaning with whatever the building blocks of our culture are, then the Westerner should be as entitled to cathedrals or calculus equations as the African villager is to witchcraft or legends.

Finally, the book is an eclectic and not a scholarly work. To make certain points Fuglesang draws upon the Whorfian hypothesis, the information processing paradigm, or Gestalt psychology. Academically, these theoretical constructs make strange bedfellows. It is easy to forgive Fuglesang, however. He is tackling a conceptual problem that is larger than traditional Western psycholinguistics or cognitive psychology; he is attempting to make meaning of how individuals of disparate cultures make meaning. With that as its purpose, *About Understanding* is a book well worth reading. ■

Available for US$12 (prepayment by banker's check requested) from the Dag Hammarskjöld Foundation, Övre Slottsgatan 2, S-752 20 Uppsala, Sweden.

Reviewed by Julianne Gilmore of the Office of Education, Bureau for Science and Technology, AID, Washington.

3 ***The Popular Performing Arts, Non-Formal Education and Social Change in the Third World: a Bibliography and Review Essay,*** by Ross Kidd (The Hague, Centre for the Study of Education in Developing Countries), 127 pp.

Almost single-handedly Ross Kidd has pushed the reluctant and ignored folk media onto the stage of development communication, and insisted that attention be paid to their performances there. What we have seen should not surprise us. The popular arts are intrinsically endowed with the appropriate voices to reach their grass-roots audiences, and can absorb an infinite variety of messages for "communication, learning, popular expression, organization, and popular mobilization in Third World social transformation programs." More and more we hear of song, dance, drama, and puppets being adopted as message carriers in every corner of the globe. Trying to keep tabs on all this activity has been difficult. By their very nature, these are elusive performances.

As well as writing extensively on the popular arts himself, Kidd has assiduously collected references, documentation, and experiences which he has assembled into an almost 2000-item bibliography that the Centre for the Study of Education in Developing Countries in the Netherlands has published.

Kidd's information search broadened from an initial development/adult education base to include any *conscious* application of the performing arts to social change, and these various uses are outlined in a well-ordered prefatory essay. Such activities as Mexico's socio-dramas presented by the National Board of Family Welfare, India's mobile puppet troupes in support of life insurance and savings campaigns, Mali's community solidarity theater, and Barbados' black consciousness theater of identity, are sketched, and a reference to their bibliographic listing given.

The kinds of programs, their purpose, animating spirit, content, audience, and other characteristics, are charted so as to illustrate the analytic framework that Kidd developed. There is a particularly useful index, broken down into countries and regions, kinds of programs (i.e. Literacy, Women's Groups), research and evaluation, kinds of performance, and a seemingly skimpy subject matter category.

The bibliographic references themselves are comprehensive, clear, and concise. As with all such references, there is inherent frustration: "How do I get a copy of . . . ?" We must not, however, burden Kidd with these frustrations. He has done a superb job, and we are all in his debt. ■

For information on this Bibliography No. 7, and other publications of the Centre for the Study of Education in Developing Countries, write to CESO, Badjuisweg 251, P.O. Box 90734, 2509 LS The Hague, Netherlands.

Reviewed by Judy Brace, Acting Director and Resource Center Manager, Clearinghouse on Development Communication.

4 ***Manual del Arquitecto Descalzo (Handbook for the Barefoot Architect),*** by Johan van Lengen (privately printed; to be published by Editorial Concepto S.A.), 287 pp., in Spanish.

Handbook for the Barefoot Architect is a profusely illustrated (with attractive line drawings), comprehensive guide to construction of low cost shelter and community buildings in areas beyond the reach of the seasoned professional architect. The introduction defines the "barefoot architect" as the person who designs and builds structures in a community or directs a group which has decided to build a larger structure for the public benefit. As the barefoot doctor needs to understand simple medical procedures, the indigenous builder should know the basic techniques of modern construction. Armed with this information and with knowledge of local customs and preferences, he or she is then able to assist clients in obtaining a superior product.

The *Handbook* includes chapters on design, building materials, construction, water, waste disposal, and energy as appropriate technology (wind and solar). There are also individual sections describing variations in design and construction in wet tropical, dry tropical, and temperate climates. The manual is not a cookbook with "recipes" for particular structures. Rather, it explains principles applicable to the building process and trains the individual to think creatively in a range of situations.

This educative approach is one of the strong points of the *Handbook*. The author is also to be commended for minimizing the use of overly technical language and for presenting the material in a logical sequence. The level of detail of each chapter is neither so general as to be valueless, nor so specific as to overwhelm. At times however, there are long sections, such as the discussion of urban planning, which may not be pertinent to the intended audience . . . And herein lies the problem.

". . . it explains principles applicable to the building process and trains the individual to think creatively . . ."

The *Handbook,* which was developed in Mexico, is not so much a field manual as a training aid for young professionals (mostly in government) who would, in turn, instruct local artisans. While architects and engineers who attended a first seminar in Baja California in Mexico were enthusiastic about improving the skills of indigenous builders, in the main they were unable to complete the course because of other demands on their time. The *Handbook,* then, was designed to accelerate future training.

While it is a valiant effort, the *Handbook* is aimed at a formally educated audience and would be incomprehensible to the typical indigenous builder. Even the so-called "barefoot" paraprofessional would require extensive training in architecture and in teaching techniques before using the manual. The young professional group might benefit most from the *Handbook* and, thereafter, train the others. However, a subsequent evaluation of the first group attending the course showed that despite their participation, they were unable to spend time in the field since their scarce skills were required in the central offices of their agencies. One is left with the feeling that the *Handbook* is a good work in search of an audience. ■

Available (write for price information) from Johan Van Lengen, Av. Eugenio Sue 45, Mexico 5 DF, Mexico.

Reviewed by Dave Olinger, Assistant Director for Urban Development in AID's Office of Housing and Urban Development.

Time for a New Approach To Population Communication

by John L. Woods

During the past 12 years large amounts of money and effort have been invested in Population Communication or IEC (Information, Education, Communication) programs. What have been the results? Are they worth the money being invested? This article suggests that it is time to reorient many of the existing Population Communication programs towards helping strengthen service delivery capabilities in national family planning programs.

Recently, the Bangkok-based United Nations Development Program (UNDP) Asia and Pacific Programme for Development Training and Communication Planning (commonly called DTCP), with the help of the East-West Center in Honolulu, completed a comprehensive review of its work in helping rural development projects be more effective. This review covered 41 government rural development projects in 12 Asian countries which had received assistance from DTCP. These projects were in family planning, health, agriculture, and similar fields. Even though DTCP had also assisted these projects with their training methods, evaluation, and planning/management components, this article focuses only on the conclusions that relate to Population or Development Communication programs.

The DTCP review revealed a number of questions related to the role of Population Communication within national family planning programs. In the Asia and Pacific region a primary emphasis of Population Communication programs is on delivering messages to family planning target audiences. The major assumption behind this approach is that "communication" is the key element to getting people to adopt family planning practices.

In the early days of family planning programs, this focus on direct communication was useful for creating an awareness among the target population. In many countries, these educational campaigns have been highly successful, with levels of contraceptive awareness now approaching 100 percent. Therefore, a continued major emphasis on creating awareness among these target audiences is often no longer needed. What, then, is needed?

The DTCP experience has shown that a major constraint in many family planning programs, particularly in the rural areas, is poor service delivery. The availability of basic health services, contraceptive supplies, and other aspects of service delivery are often dreadfully weak. This has been recognized by many family planning administrators and highlighted in many evaluation studies. Dr. Nafis Sadik, Assistant Executive Director of UNFPA, has often written about the need to strengthen service delivery capabilities.

Communication campaigns without adequate service delivery capability cannot create successful family planning programs. In fact, this approach can cause frustration and even resentment towards government programs. Therefore, the DTCP review concluded that there needs to be a new look taken at the role of Population Communication. Specifically, more emphasis is needed on using Population Communication to help strengthen the capability of family planning organizations to deliver better services.

A key element in service delivery is well-trained and motivated field-workers. A Development Support Communication approach (commonly referred to as DSC) is needed to achieve this. The key to the DSC approach, as it has evolved during the past few years of DTCP work, is the utilization of communications resources to first help strengthen the service delivery infrastructure and then, second, to encourage the target groups to use these services. In practical terms, this means using Population Communication resources (or units) to help do the following:

1) improve the quality of staff training with relevant reference manuals, teaching aids (printed and audiovisual), and continuing education materials such as technical reports and self-study materials;
2) increase the effectiveness of the field, workers' education/motivation efforts through the production of appropriate lecture aids and handout materials;
3) implement more effective "management information programs" including newsletters, meetings, and other activities so that administrators can more easily communicate to their staff (this includes providing effective mechanisms for the staff to "feedback" vital information to the administrators);
4) continue direct communication efforts to the target audiences, but in a way that is coordinated with, and is an integral part of, the basic family planning program (as should be the above elements).

Reorienting Population Communication programs will require some effort by both family planning administrators and communication specialists. Family planning administrators must recognize that Population Communications is an essential tool within their overall planning and management activities. Initially, administrators themselves may need some assistance or training in how to do effective DSC planning and implementation. The crucial decisions of when and how Population Communication will be used must be the responsibility of the family planning program administrators.

Communication specialists must be willing to work as a team in the planning and implementation of family planning programs. Many of the communications specialists working in family planning have academic backgrounds in mass communications which partly explains why many IEC (information, education, communication) programs focus on mass media awareness/motivation campaigns. Therefore, these communication specialists may need additional training in development program planning, education/training methodology, management communications, and other related fields in order to introduce the DSC approach.

It is significant to note that in the term DSC the word "Development" comes first. All elements of the basic development program—technology, supply inputs, field staff, training programs, etc.—must be present before there can be any meaningful communication activity. The word "Support" is the key to the DSC concept; Communication is a resource which development planners and administrators can draw upon to support their central program, particularly the service delivery.

The DTCP experience has shown that many countries in the Asia and Pacific region need to begin reorienting their approach to Population Communication. It is time to broaden the focus of these communication programs. Rather than concentrating on direct education/motivation communication efforts to target audiences, it is time to begin using more of these communication resources to strengthen the service delivery infrastructure. By following the DSC approach, Population Communication can be an effective tool to help national family planning programs to be more successful. ■

A full report of the review done by DTCP is available through UNFPA or UNDP Representatives, or directly from DTCP, P.O. Box 2-147, Bangkok, Thailand. The title of the report is "Making Rural Development Projects More Effective: A Management Systems Approach."

John L. Woods is Director of the United Nations Development Program for Development Training and Communication Planning in Bangkok.

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Readers are invited to submit typed manuscripts of no more than 1000 words, and to send in photographs.

Community Radio Thriving in Ecuador:
Otavalo Indians Running Their Own Show

by Kurt Hein

Major UN-sponsored media conferences, in Nairobi in 1976, Belgrade in 1977, and Quito in 1978, focused on the desirable goal of establishing more "participatory" media in the Third World. While a number of studies have examined individual programs and short-term, experimental projects, there is little evidence that much progress toward this goal has been made in the past five years.

A notable exception can be found, however, in Otavalo, Ecuador. Initiated in 1977, Radio Baha'i has come perhaps the farthest of any rural radio station in realizing the conferences' objectives of providing "access, participation, and self-management."

Radio Baha'i, owned by the Baha'i community of Ecuador, is a community station, established to serve the interests, needs, and tastes of the community in which it is located (selected for its high number of Baha'is). The Baha'i faith, based on the teachings of the ninteenth century prophet, Baha'u'llah, promotes the oneness of mankind, the elimination of prejudice, and the common foundation of all religions. There are Bajai's in more than 100,000 places around the world. Rural Indians comprise the majority of the Bahai communities of Ecuador and the neighboring Andean countries. Situated in Otavalo, Ecuador, a picturesque Andean town of approximately 10,000 known for its colorful Indian tourist market, the station's primary audience are rural Indians in the two major valleys surrounding Otavalo.

Typical of rural traditional societies, the Otavalo Indians are a people whose way of life is increasingly being eroded by the incursion of twentieth-century technology and values. Villages are experiencing a serious decline in population as young men and women leave for jobs in the urban centers; cultural values are being displaced by the heavy saturation of mediated messages and products from the urban centers; and even the traditional artisan craft, weaving, is undergoing a radical transformation due to the introduction of mechanized looms, synthetic fibers, and mass marketing. In the middle of this pressure for modernization are nearly 100,000 *campesinos,* indigenous peasants whose principal activity is subsistance farming. Obviously, owing to their limited economic resources, the Otavaleños are not a group to whom commercial stations direct their broadcasts.

Recognizing these factors, the Baha'is built the station for several reasons: first, to promote and maintain the value, dignity, and significance of the people and their traditional indigenous culture; second, to promote education, the delivery of social services, and the dissemination of basic development information; third, to serve as a voice for the community, enabling villagers within a 50-mile radius to exchange information, make announcements, and share news about important activities and events in the region.

To accomplish these objectives, several significant decisions were made. First, it was decided that Radio Baha'i would broadcast in both Spanish and Quichua, becoming the first Ecuadorian radio station to broadcast a major portion of its programming in the Indian's native language. (Indigenous people comprise more than 50 percent of Ecuador's total population.) At first, the station broadcast approximately 35 percent of its programming in Quichua. That has now increased to 50 percent, with a goal of 80 percent by 1985. Second, staff members were recruited from the local population. The majority of the staff are local residents, including the station's 23-year-old General Manager, a native of Otavalo. Approximately half of the staff are indigenous, coming from nearby villages to work regularly at the station. Only two of the indigenous staff are literate, and only one of them received any schooling beyond the first grade. Nonetheless, all staff members have been trained to create, produce, and edit their own programs. Each staff member, male or female, literate or not, knows how to operate all the studio equipment, including tape recorders, cart machines, turntables, microphones, and mixing consoles.

Programming decisions are made by the station staff. Each staff member makes regular visits to the *campo* (countryside) to conduct formative evaluation on the programming, often spending several days in a community to establish a good relationship with the audience, and to receive information about listeners' needs and preferences. Final programming authority rests with a three-member "Radio Commission," one of whom is an illiterate woman from a distant farming community. She has become somewhat of a local celebrity and has represented the radio station as the Mistress of Ceremonies for Otavalo's two largest annual festivals, one in celebration of the corn harvest, the other an indigenous music festival sponsored by the station. She also produces and moderates the station's most popular cultural program, a four-hour weekly show devoted to traditional music, legends, and information of interest to the rural audience.

Broadcasting in Quichua, playing traditional music exclusively, and airing programs aimed at maintaining traditional values has made Radio Baha'i the most popular station in the region. A recent survey conducted by the author indicated that a remarkable 94 percent of the potential audience listens regularly or occasionally to Radio Baha'i. This is especially impressive in light of the fact that more than 30 stations can be heard in Otavalo.

Suprisingly, the station is able to achieve this popularity, broadcasting 19 hours a day, seven days a week, on a budget of approximately US$50,000 a year. Composed primarily of rural villagers, the Baha'i community of Ecuador does not have an abundance of funds on which to draw. Instead, they rely on the dedicated, even self-sacrificing service of the staff, all of whom, essentially, are volunteers, receiving only a nominal subsistence allowance. Members of the staff usually cite the "intangible" reward of serving their people as the primary motivation for working at the station.

The equipment at the studios is quite modest; most of it is used, outmoded equipment acquired from the United States. In fact, the transmission facilities attracted the attention of the National Frequency Board,

(continued on page 13)

Members of the staff of Radio Baha'i Vincenta Anrango (l) and Juanita Perugachi (r) visit listeners in a rural community. Woman in center has offered her house as a listening center for the station's programs for children.

On File at ERIC

Reports from the ERIC (Educational Resources Information Center) files reviewed in this column discuss the planning and management of communication media and describe two information centers, one of which is considering computerizing its services, and one which already has computer resources. All are available on microfiche from the ERIC Document Reproduction Service (EDRS), P.O. Box 190, Arlington, Virginia 22210, USA. The first three are available in paper copy from IIEP Publications, International Institute for Educational Planning, 7-9 rue Eugene Delacroix, 75016 Paris, France. The first two are also available in French.

- McAnany, Emile G. and Mayo, John K. ***Communication Media in Education for Low-Income Countries: Implications for Planning. Fundamentals of Educational Planning-29.*** 1980, 80 pp. (ED 213 108)

This discussion of planning issues bridging education and communication in low-income countries addresses the democratization of educational opportunity, the quality of instruction and learning, the impact of education through technology on rural areas, and the participation of people in their own education. Evidence from four case studies of relatively successful applications of communication media for education and development is cited in the discussion of each of these issues. Three of the studies involved the use of radio: extended learning in the Dominican Republic, qualitative improvement of mathematics teaching in Nicaragua, and community action in Tanzania. The fourth study looked at the experimental use of satellite television broadcasting in India. The effect of the level of technology adopted and the context of its use on cost estimates is shown, and conclusions and recommendations for planners are given. Available from EDRS in microfiche only for 97¢ plus postage, or from IIEP Publications in paper copy.

- Gutelman, M. ***The Use of Modern Media for Rural Education in Developing Countries—The Organisational Problems.*** 1979, 51pp. (ED 213 114)

The first part of this report deals with inherent technical constraints on the various media, and the way those constraints affect providing school-age children with basic education. It also discusses methods of organization and problems of extending secondary and technical education in developing countries in light of the constraints on the media. Each of the major media is examined in terms of its potential range of use. The second part deals with questions relating to the overall organization and utilization of modern communication media in rural education. Unesco materials, discussions with special lists, and the author's own experiences provided the background for the report. Available from EDRS in microfiche only for 97¢ plus postage, or from IIEP Publications in paper copy.

- Chateh, Peter. ***Documentation Centre of the Association of African Universities.*** 1980, 23pp. (ED 214 545)

This report presents the results of a study of the Documentation Centre of the Association of African Universities (AAU) which was undertaken to work out proposals for the rational organization of the Centre, and to explore the possibility of computerizing the Centre and linking it with other centers which provide automated documentation services. The background of the AAU and its objectives are summarized, and its functions, staffing, holdings, physical facilities, and budget are discussed. Also described are abstracting, bibliographic search, and translation services available through the Centre. Major problems in the areas of personnel, holdings, equipment, and facilities at the Centre are reviewed, and the computing resources, personnel requirements, and costs involved in computerizing the Centre are described. A detailed list of recommendations for the more effective organization and operation of the Centre closes the report. Specific recommendations are concerned with printing services, the binding and publications service, the technical services department, the information and research service, inter-institutional cooperation, and the computerization of the Centre. Two charts are appended. Available from EDRS in microfiche only for 97¢ plus postage.

- ***Supporting Innovations in Education: Preparing Administrators, Supervisors, and Other Key Personnel. Report of a Technical Working Group Meeting (Seoul, South Korea, September 29-October 11, 1980).*** 1981, 94pp. (ED 214 229)

This meeting on methods of training educational administrators and supervisors to be supportive of educational innovation was attended by participants from 11 countries: Bangladesh, India, Indonesia, Japan, Malaysia, Nepal, Pakistan, the Philippines, South Korea, Sri Lanka, and Thailand. This report summarizes the proceedings of that meeting and the recommendations made for better training of key personnel involved in educational change. Presentations by the participants describe innovations implemented or suggested for bringing about changes in teaching and learning in their countries, especially in science and technology education; the current preparation of key educational personnel in each country is summarized, with special reference to new planning procedures; problems and issues related to the preparation of key administrative and supervisory personnel to support innovations in teaching and learning are presented; and recommendations are made for better preservice and inservice training of administrators, including national administrative institutes of education and advanced-level workshops. Available from EDRS in microfiche only for 97¢ plus postage.

(continued on page 14)

Cloth (continued from page 7)

Because of the overlapping visual needs, a textile visual materials production unit was proposed as a collaborative effort of interested institutions. This would prevent duplication of visual messages, and, thus, unnecessary expense, and promote production and use of cloth-based visual materials in a wide range of programs. The production unit system would offer valuable training to textile students, while producing attractive and *useful* educational designs. In addition, channeling resources out of the capital city and into a rural institution not only made use of existing facilities, but supported the stated government policy of encouraging rural development.

In the Sudan, the development of textile visual aids has been even more encouraging. A feasibility study sponsored by the World Health Organization in 1979 found that *all* of the materials needed were locally available. Cotton cloth was abundant and very inexpensive, making it a very appropriate visual communications tool. Gelatin glue prepared from animal bones was used to make the stencils. Women's veil materials were substituted for the imported stencil fabric. A paste made from sorghum starch and direct dyestuffs was used to make the printing binder.

WHO and the Sudan's Ministry of Health are following up on a proposal to establish a rural production center for printing textile visual messages for health education programs. It is possible that, once established, the production center may evolve into an income-generating operation for the village—printing cloth designs for many extension programs in the country.

Printed cloth materials are not offered as a panacea for the urgent communication and educational needs in Africa. Visual aids are clearly very helpful, particularly when combined with radio discussion groups and other participatory media. What is significant is the approach: rather than trying to transplant a communications medium from the West, the strategy has been to take advantage of the materials and resources that are available locally so that communication tools will be relevant for the learning needs, local resources, and cultural setting in African countries. ■

For more information on printed cloth posters, contact Beverly Emerson Donoghue, Center for the Development of Non-Formal Education, 2109 East 2nd Street, Austin, Texas 78702, USA.

Briefly Noted: Publications of More than Passing Interest

Two small booklets, the results of gatherings of communication practitioners, are now available:

- *Community Communication* is the report of a workshop held in 1980 by the Indian Centre for Development of Instructional Technology. The workshop featured ways in which communication could be a catalyst in the community development process. Workshop participants studied the following examples: the Peruvian videotape project in support of rural development, broadcast TV for children and use of videotape in rural areas in India (*DCR* #35), and drama as a tool for community involvement and two-way communication. Films, video, and theater presentations were shown to demonstrate program resources. A point stressed throughout was that information becomes communication only when the mechanism for feedback exists. The Workshop devoted considerable attention to training in production methods. Choice of a medium, selection of an objective, identification of the audience, built-in evaluation—all the communication planning elements that can never be repeated too often—are restated here for the reader's benefit. The workshop's agenda and list of participants are included. The *Report on a Community Communication Workshop* may be requested from the Centre for Development of Instructional Technology, C11 Community Centre, Safdarjung Development Area, New Delhi 110 016, India.
- Sri Lanka was the site of a Symposium on Alternative Media in early 1982, hosted by the Worldview International Foundation. The proceedings—15 short papers—have been collected and make interesting reading by their diversity, although the theme of "alternative media" is not readily apparent. The speakers addressed such issues as film beyond entertainment, relevancy of the newspapers, educational TV, OPEC's information program, distance education, and India's satellite efforts. Arthur Clarke contributed a brisk review of the benefit of satellite- as opposed to costly new ground-communication for developing countries. The Worldview International Foundation, in sponsoring this symposium, appears to be building toward a media effort in support of proper nutrition to prevent xeropthalmia (nutrition-related blindness). The Symposium proceedings are available from Worldview International Foundation, 10 Kinross Avenue, Colombo 4, Sri Lanka.
- A new and valuable resource is now available to readers of *DCR:* a bibliography entitled "Using Pictures in Literacy Work," compiled by Bruce L. Cook. Cook has cited over 100 publications in English, Spanish, and French, that deal with literacy training and materials, visual perception, and field experiences. Some of his citations date back to the 1930s, testimony to the thoroughness of his research, but suggestive of the difficulties others may encounter trying to locate these references. As more and more educators recognize that visual perception reflects the cultural base of a society, they appreciate the need for careful evaluation of materials in each educational setting. The fine studies made in Nepal should inform the materials designer in Africa, but not replace local perceptual testing. The cartoon-like figures dear to Central American *campesinos* would probably have little influence in Papua New Guinea. The more specialists have access to the literature, the better the materials they develop will be. A bibliography such as this will assist the process substantially.

  Copies of the bibliography are available for US$2.00 prepaid, from the David C. Cook Foundation, 850 N. Grove Ave., Elgin, Illinois 60120, USA.
- Microcomputers are an important element of the contemporary communication scene, and many of those who work in or with developing countries are concerned that micros not be pushed into inappropriate settings with irrelevant software and inadequate training and maintenance. Any number of meetings have been held or are being contemplated to discuss applications and implications of microcomputers in developing countries. Developing country planners, researchers, program designers, project monitors, among others, will need to give thoughtful, informed consideration to their own actual and potential microcomputer applications. Some of the necessary information to make these judgements can be gotten from international publications that cover the field. The Technology Programme of UNIDO (United Nations Industrial Development Organization) is actively involved worldwide in microelectronic technical assistance, has put out a number of interesting working papers (some of which are available in Spanish), and publishes a very informative newsletter (in English), *Microelectronics Monitor.* The newsletter features news of UNIDO's own microelectronic assistance, country activities, industry developments, excerpts from other publications, market trends, and recent publications. News of microelectronic activity is solicited, particularly from developing countries.

  For subscription information, contact UNIDO, Technology Programme, Division for Industrial Studies, P.O. Box 300, A-1400 Vienna, Austria.

(continued on page 6)

Advanced Training In Rural Reconstruction

The International Institute of Rural Reconstruction is currently receiving applications for its 18th and 19th International Training Sessions to be held from February 16 to April 8, 1983, and from September 5 to 30, 1983, respectively.

The 19th Session, "Advanced Training in Rural Reconstruction," is for men and women responsible for implementing rural development projects of government and non-government agencies in the Third World. Conducted semi-annually, these sessions provide a forum for participants from Asia, Africa, and Latin America to study the history and philosophy of rural reconstruction, rural development strategies and issues, and to share experiences and methods for promoting participatory change and integrated development at the village level.

Candidates should be actively engaged in rural development, must be nominated by their organization, and have a minimum of three years' experience in managing rural development projects.

The course will be conducted in English and the cost (excluding international travel) is US$2,150. A limited number of full and partial fellowships are available to most deserving candidates.

Further information and application forms may be obtained from: J. R. Batten, Training Director, IIRR, Silang, Cavite, Philippines.

Radio (continued from page 11)

responsible for licensing the station, because of the unconventional equipment. The antenna is an original design that uses inexpensive aluminum irrigation pipe used in local agriculture. Despite initial scepticism, the broadcast license was awarded when government engineers found it to be the most efficient 1000-watt transmitter in the country.

Broadcasting in the local language, choosing local villagers as staff members, and placing a priority on content over technology have helped to make Radio Baha'i popular. In a future article, we will look at other reasons for the station's success, including a closer examination of its programming philosophy and production methods, its innovative local news program, audience participation in the programming, and special nonbroadcast cultural activities sponsored by the station. ■

For further information contact Marcelo Quinteros, Executive Director, Radio Baha'i, Apartado 14, Otavalo, Ecuador.

Kurt Hein served as the Assistant Director of Canadian International Development Agency's (CIDA's) Rural Radio Development Project in Otavalo. He is currently the Executive Producer of the Academy for Educational Development's Radio Language Arts Project in Nairobi, Kenya.

Nepal (continued from page 2)

falling under the authority of the Ministry of Forests are covered during this radio program, much emphasis is given to community forestry. Basic objectives of the community forestry component are as follows:

- to create awareness of the Community Forestry Development Programme (CFDP) and its benefits to the hill villagers;
- to create understanding of how the program works and the people's role in it;
- to remove any doubts about the program that hill people may have; and
- to create a 'bandwagon effect' for participation in the CFDP, i.e., to show that community forestry activities are taking place all over the hill areas.

The radio program is oriented towards field activities; that is, much of the content comes from or deals with people and events in the hill project areas. Voices and views of hill villagers are heard in the program as much as possible.

Other Media

In addition, other designs have been created to keep the program in the public's awareness. A logo, or symbol comparable to a trademark, was developed and is used on all printed materials to link them to the program. For further reinforcement, all staff working directly with the program on a continuing basis are issued T-shirts showing the project's logo.

A metal button showing the logo is issued to all senior and intermediate staff and will be given to junior staff and village leaders as an acknowledgement or reward for good work.

Towards a Coherent Forestry Extension Service

The Ministry of Forest and Soil Conservation is fully aware of the urgent need to build up a forestry extension capability. Efforts are already underway to establish a Development and Communication Support Section in the Ministry, which will help and serve the extension needs of all the agencies within the forestry sector.

A Training Wing in the Ministry has recently been created with the support of USAID. With a limited number of staff, this Wing is not designed to undertake a large amount of direct training. Rather, it assumes training management, coordinating, and clearinghouse roles. It will largely use trainers and other resources from within and outside the Ministry and works closely with the four technical departments in determining and meeting their staff training needs.

Outside the Ministry, meanwhile, Tribhuvan University's Forestry Institute is starting a diploma course in forestry and watershed management. Both the diploma course and the existing certificate course will include extension and relevant social science subjects.

As part of the ongoing monitoring and evaluation program of the whole project, an assessment of knowledge and attitude towards community forestry was made approximately two years after the program began. A survey of 900 households and 180 village leaders has shown a substantial, statistically significant, increase in knowledge regarding community forestry activities in panchayats where the program has been in operation. In general, knowledge scores of the 200 participating panchayats are twice those of the not-yet participating ones. However, the survey results also pointed out some areas in which extension needs to be more effective. These areas will receive particular attention. ■

For more information, contact E. Pelinck, Community Forestry Development Program, P.O. Box 107, Kathmandu, Nepal.

Training For Distance Education

The International Extension College's successful course on distance teaching is to run again in the summer of 1983, but for four months instead of three. An evaluation of previous courses, which the College has run with the University of London Institute of Education since 1977, showed that participants valued the course but thought it covered too much ground in too short a time. So the course has been extended, mainly to let students spend more time on individual project work while in London.

The course is designed for people working in all kinds of distance-teaching institutions. They have come from agricultural extension services, open universities and government correspondence departments in Africa, Latin America, and Asia. Since the courses began, participants have come from 28 countries: in 1982 they were from Botswana, Ghana, India, Jordan, Kenya, Malawi, Pakistan, Thailand, and Zambia.

While in London, course members work on four topics. All attend workshops on course writing, on administration, and on the mass media, so that the course meets the needs both of writers or editors and of administrators. Then each course member works on an individual project, under the guidance of an IEC tutor, and presents the results of the project to the other course members.

Scholarships to attend the course are usually arranged through the British Council. Further information is available from: Ms. Jo Bradley, Information Officer, International Extension College, 18 Brooklands Avenue, Cambridge CB2 2HN, England.

World Conference of Community Radio Broadcasters

The Quebec (Canada) Association of Community Radio Broadcasters has announced a major world conference on community radio to be held in Montreal, Canada, in August 1983. Community radio broadcasters—announcers, producers, and organizers—will meet to exchange information and discuss ways of cooperation. A community radio festival will be held at the same time; producers and broadcasters will exchange broadcast techniques and try out and discuss technologies.

Organizers of the conference are preparing a complete list of all community radio stations around the world. They know a good deal about community radio in Belgium, France, and North America, but would appreciate information about community radio broadcasters and organizations in other countries.

Write to Michel Delorme, Association des radiodiffuseurs communautaires du Québec, 938 est, rue Rachel, Montréal (Québec), Canada H2J 2J1.

ERIC (continued from page 12)

- Schwarz, Stephan. ***A National Documentation and Information Centre of the Kenya National Council for Science and Technology.*** 1980, 55pp. (ED 214 546)

This report presents the results and recommendations of a study conducted to aid the Republic of Kenya's National Council for Science and Technology (NCST) in the development of a National Documentation and Information Centre to coordinate existing research and development (R&D) services. The background of the NCST and its relationship to the R&D community in Kenya is reviewed, the NCST's views of the objectives and role of an R&D information center are presented, two earlier Unesco reports on the establishment of information centers in Kenya are summarized, the functions of the Regional Committee for the Development of Information Services in Eastern Africa are outlined, and existing documentation services and libraries in Kenya are described. Computer facilities available in Kenya for information and documentation service purposes are listed, and some of the general questions surrounding the development of national information services are addressed. The 25 recommendations presented are grouped in three broad categories: organizational objectives and structure, the center as a force in the development of other information services, and staff, consultants, and funding. A 57-item reference list and three appendices accompany the text. Available from EDRS in microfiche only for 97¢ plus postage. ■

Barbara B. Minor, Publications Coordinator, ERIC Clearinghouse on Information Resources, School of Education, Syracuse University, Syracuse, New York 13210, USA.

Communication (continued from page 5)

have asked the help of village leaders to persuade villagers to attend. During the meeting, it might have been possible to use some visual aids such as flipcharts, slides, or color photographs of HYV747, or actual specimens of fertilizers, herbicides, and pesticides. He could have invited a farmer from another village who had successfully tried the new variety. And even better, the field-worker could have earlier carried out an actual demonstration by planting the variety in a portion of a farmer's field visible to all in the village.

The important thing to remember is that people can receive communication only through the five senses; sight, hearing, touch, smell, and taste. The more senses we use to communicate our message, the greater the chances that it will be understood.

Feedback

Feedback is vital to effective communication. Sending messages is only one third of the job. The other two thirds are finding out what effect our communication has had on the receiver, and then correcting subsequent messages until the communication objective is achieved. It has been said that astronauts from the United States of America reached the moon through a series of errors, because each time they made an error, they found out what it was, how much of an error it was, and how it could be corrected.

Unfortunately, the agricultural field-worker in our example took the easy way out. Instead of taking steps to find out why farmers did not adopt HYV747, he simply concluded that they were "lazy, resistant to change, and truly stupid."

Sender

The sender is the initiator of communication and it is his responsibility to see to it that the communication objective is achieved. Unfortunately, most of those engaged in rural extension or communication often do not get enough training in communication. They may possess a technical background in agriculture, which is good for obtaining information on crops and livestock, but not for dealing with people. Many rural extension workers or communicators come from cities or big towns and therefore hold urban values and attitudes, thus compounding the communication problem.

All these factors point to the need for adequate training in communication and extension. Here, we should remember that the manner in which communicators and extension workers receive training is as important as the content of their training. For example, if lectures are the chief method used, communicators and extension workers are likely to use this method when teaching farmers.

The attitude of rural communicators towards their work and towards farmers frequently needs to be changed. We sometimes feel that we hold the key to the farmers' salvation and that we are doing them a favor. We think we have the answers to their problems. Thus, it is not surprising that we adopt a doctor-patient or teacher-pupil attitude when dealing with rural families.

Truly effective communication, however, cannot proceed from this premise. If communication is the sharing of ideas, the sender should learn to receive messages as much as he sends them. ■

Dr. Gecolea is a Planner/Programmer for the UNDP Asia and Pacific Programme for Development Training and Communication Planning (DTCP).

Reprinted by permission from *Agricultural Information Development Bulletin*, Vol. 4, No. 2, published by the United Nations Economic and Social Commission for Asia and the Pacific, United Nations Building, Rajdamnern Nok Ave., Bangkok 2, Thailand.

New Brochure of Note

The Information Division of the FAO (Food and Agriculture Organization of the United Nations) has published a new booklet entitled "Communication for Rural Development."

Illustrated with striking photographs of field-level communication which show rural people using cassettes, slidetapes, face-to-face communication, and radios, the booklet explains why communications should be an essential part of development projects. Author Paul Harrison cites many examples from around the developing world to illustrate the value of a well-planned, relevant development support communication component to rural development projects.

The booklet is available in French and Spanish as well as English, and can be ordered from the Development Support Communication Branch, Information Division, FAO, Via Delle Terme di Caracalla, 00100, Rome, Italy. ■

Villages (continued from page 15)

worm, measles, etc. You need to know the communications available now. What radios are there? Batteries, is there a supply? If the radio programs are for women, find out simple things such as whether women are allowed to switch on radios when husbands are not home. At what times do women listen? One has to go through all this. Then among the objectives of the major program you should find your communication objectives too. So resources are divided according to objectives and the question of $5,000 stuck on the end does not arise. At the implementation stage the communications go along with the rest of the objectives and are also monitored.

DF: Do you feel that it goes for technology in general that faith is not enough? The availability of technology is not sufficient to guarantee its use?

Tuluhungwa: Existing communications technology is sufficient for development needs. Where we have not succeeded is on the conceptual side. How can the technology be used? Secondly, we have not got the design of the messages sorted out. For example, sophisticated urban folk in rich countries may learn from videocassettes but, for poor rural folk, maybe it has to be drama. Where we have gone wrong is in the prior analysis that should have determined the choice of technology.

DF: Does this lesson apply to technology in general, for agriculture for example?

Tuluhungwa: Yes. Technologies at the village level exist already but perhaps they have been overtaken. The principles for introducing new technologies are similar. So that with industry, too, you must apply the same criteria before you decide on what technology to bring in.

DF: On a final note, can you say if the experience acquired has demonstrated whether developing countries are going to follow a different path from the industrialized countries. Can they avoid recapitulation of massive urbanization, environmental devastation, and all the other disasters which have befallen the richer countries?

Tuluhungwa: Development models in the Third World are undergoing a serious metamorphosis triggered by global financial problems. People feel they should have used human resources more, reforming the educational system, looking into local technology—the ox plough before the tractor, etc. Tractors were not used efficiently because the infrastructure was not there—no mechanics, poor maintenance. In some countries you find tractors running well in villages because the technology is there. In India, say. But in Africa the same tractor does not run! Now, by the year 2000 it is estimated that on average 60 percent of the population of developing countries will be urban. And 61 percent of growth in urban population will be from within the towns and cities themselves. So you are getting increasing numbers of people with no skills, who can find no jobs. Governments are concerned with supporting the 40 percent left in the rural areas, helping them to make a living and also dealing with the urban problems. So they are thinking of small industries, not the giant companies. That is where communications will play a big part, especially with training. The people have no skills and may have to be trained even to use a hammer or a small electrical tool. So communication again reappears as vital to skills training and on how to market produce without being exploited by middlemen. So you see, I think we can say that we have learned something over the last 25 years. ■

Reprinted from *Development Forum*, DES1/DP1, Palais des Nations, CH1211 Geneva 10, Switzerland.

Villages: The Forgotten Resource
An interview with Revelians Tuluhungwa

This article is reprinted from Development Forum, *Volume X, No. 6, published by the United Nations University and the Division of Economic and Social Information/DPI.* Development Forum *interviewed Revelians Tuluhungwa, Chief of UNICEF's Project Support Communications Service, on the subject of village development and communications.* DCR *is pleased to reprint selections from that interview.*

* * * * *

DF: Could you outline the importance of communication in the approach to villages in developing countries?

Tuluhungwa: Communication is both a process of social interaction, of learning, and also a matter of techniques. The problem is that many development agencies and many governments have looked at communication as information "per se," also as techniques. So a Ministry of Health official will define health education as the production of several radio programs based on a textbook developed by a doctor, or a series of posters to be hung on trees in the villages. Now both of those fail to help a farmer understand why he needs a latrine and how to build a latrine. It does not help him to understand why his children should be immunized or why a polio vaccine has to be three doses. It does not teach farmers fertilizer-use or post-harvest storage. So communications is a process in a program whereby if there is a food or education program one should look at what kind of orientation the technicians who are going to work on the program need—i.e., in terms of their capacity to explain the program to the villagers and generate motivation and participation. One must aiso look at what kind of community education is needed to enable the villagers to participate, benefit, and then care for the project when the external funding is over. So we are talking more of development as an education of the mind, as social change, as having more access to information and to learning skills. It goes beyond merely divulging or propagating information.

DF: You obviously have a great affection for villages. Do you feel it is important, for the future, that the rural sector should be healthy? Why do villages have to be treated with such attention?

Tuluhungwa: In most countries, most of the populations live outside the cities. The cities expect rural people to produce food to support them and other less fortunate parts of the countryside. If the rural areas cannot feed themselves, the people who eventually suffer most are the people in the cities. Governments understand this. My respect for the village is based on the fact that I was born in one, I have worked in a village and I have seen the wealth of human resources that exists there. Their demands are not great if they can be assured that their crops will be good, that they can sell their surplus at a good price, that they can buy a new dress, cope with the diseases that afflict their children, buy a radio, or that sort of thing.

DF: The potential of technology as the key to development is a very popular cause. This is very evident in the area of communications where there have been remarkable changes in communications technology. Has this potential been realized?

Tuluhungwa: Not as much as it should have been by 1982. Let me illustrate: for political reasons governments have invested in TV stations which run five to eight hours a day in most countries. When you examine the programs you will find it rare to have even five percent of the time allocated to educational programs. One reason is that those involved have nothing to do with the sectors of government responsible for development. It is the Ministry of Information, not Planning, Health, or Agriculture who controls programming. The development sectors themselves look at communications as a kind of appendage to a project or program. Any typical project description has a last paragraph which says "community education is going to play a big part in this program—therefore US$5,000 are reserved for it!" The $5,000 will go on a public relations brochure for the project or maybe after two years someone will say, "Hey, the program's not going well, can we get a communicator to come in and do something about it?" So by the time they get someone, there will only be $2,000 remaining, enough to produce one radio program. Now what *SHOULD* be done? Our experience shows that an experienced communicator should be called in *right at the beginning.* He should plan the communication component by gathering data and help the agency to design ways through which the villagers can participate in the information side. Otherwise they are passive. Gathering data is essential so you know what educational objectives there should be. You should aim at community education, behavior change, and last, skills acquisition. What sort of data? You need to establish the knowledge gaps, find out what they do now, for example on the nutrition side; what do they do now when a child gets kwashiokor, signs of hook-

(continued on page 15)

Development Communication Report

Clearinghouse on Development Communication

1414 22nd Street, N.W.
Washington, D.C. 20037 USA
Tel. (202) 862-1900
Cable: ACADED

Judy Brace, Acting Director
and Resource Center Manager
Heddy F. Reid, Editor
Arlene Horowitz, Program Assistant

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